

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A signal encoding system (100) comprising:

- means ~~(101)~~ for receiving a signal;
- a pre-encoder ~~(103)~~ for pre-encoding the signal to generate a pre-encoded signal; and
- ~~a watermark processing means (109) comprising:~~
- a decoder ~~(111)~~ for decoding the pre-encoded signal to generate a decoded signal; and
- a watermark embedder ~~(113)~~ for inserting a watermark in the decoded signal to generate a watermarked signal; and
- a re-encoder ~~(117)~~ for re-encoding the watermarked signal to generate a watermarked encoded signal; and

wherein the pre-encoder ~~(103)~~ is operable to generate ~~generates~~ encoding assistance data, and the re-encoder ~~(117)~~ is operable to ~~re-encode~~ re-encodes the watermarked signal in response to the encoding assistance data.

2. (Currently Amended) ~~A~~ The signal encoding system as claimed in claim 1, wherein the pre-encoder ~~(103)~~ is operable to ~~include~~ includes the encoding assistance data in the pre-encoded signal.

3. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 2_L wherein the pre-encoder (103) ~~is operable to include~~includes the encoding assistance data in at least one ancillary data section of the pre-encoded signal.

4. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1_L ~~wherein said signal encoding system further comprising~~
comprises:
_____ storage means (105) ~~for~~ storing the pre-encoded signal.

5. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 4_L wherein the storage means (105) ~~is operable to store~~stores the encoding assistance data.

6. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1_L wherein the pre-encoder (103) ~~is operable to generate~~generates encoding parameters associated with an encoding data rate different than an encoding rate of the pre-encoded signal_L and ~~to include~~includes the encoding parameters in the encoding assistance data.

7. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1_L wherein the encoding assistance data comprises encoding ~~quantisation~~quantization control data_L.

8. (Currently Amended) A-~~The~~ signal encoding system as claimed in claim 1_L wherein the encoding assistance data comprises encoding scale factor data.

9. (Currently Amended) A-~~The~~ signal encoding system as claimed in claim 8_L wherein the encoding scale factor data comprises a scale factor offset associated with a scale factor offset value between a first encoding rate and a second encoding rate.

10. (Currently Amended) A-~~The~~ signal encoding system as claimed in claim 9_L wherein the first encoding rate is an encoding rate of the pre-encoded data signal_L and the second encoding data rate is an encoding rate of the watermarked encoded signal.

11. (Currently Amended) A-~~The~~ signal encoding system as claimed in claim 9_L wherein the encoding assistance data does not comprise scale factor values.

12. (Currently Amended) A-~~The~~ signal encoding system as claimed in claim 9_L wherein the re-encoder ~~is operable to generate~~generates the watermarked encoded signal at the second encoding rate by determining re-encoding scale factors in response to the scale factor offset and scale factor values associated with the first encoding rate.

13. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 9_L wherein the pre-encoder ~~is operable to replace the~~ replaces scale-factors of the pre-encoded signal by a shifted version of the scale-factors of the second encoding rate.

14. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1_L wherein the encoding assistance data comprises encoding rate independent encoding parameters that are ~~substantially~~ independent of the encoding rate.

15. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1_L wherein the encoding assistance data comprises a first encoding parameter associated with a first encoding rate, and wherein the re-encoder comprises means for determining a first corresponding encoding parameter associated with a second encoding rate in response to the first encoding parameter.

16. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1_L wherein the encoding assistance data comprises perceptual model data.

17. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1_L wherein the re-encoder ~~(117) is operable to operate~~ operates frame aligned with the pre-encoder ~~(103)~~.

18. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1~~4~~, wherein the received signal is an audio signal.

19. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 18~~4~~, wherein the pre-encoded signal is pre-encoded in accordance with an MPEG audio compression standard.

20. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 1~~4~~, wherein the received signal is a video signal.

21. (Currently Amended) A signal distribution system comprising a signal encoding system as claimed in claim 4 and wherein the pre-encoder ~~(103) is operable to pre-encode~~pre-encodes a multiplicity of signals; the storage means ~~(105) is operable to store~~stores the multiplicity of signals and the watermark processing means ~~(109) is operable to individually embed~~embeds a watermark in a plurality of signals, and wherein said signal distribution means further ~~comprising comprises means (119) for~~ distributing the plurality of signals.

22. (Currently Amended) A method of encoding a signal, said method comprising the steps of:

receiving a signal;

pre-encoding the signal to generate a pre-encoded signal;

~~generate~~generating encoding assistance data in

association with the pre-encoding;

decoding the pre-encoded signal to generate a decoded signal;

inserting a watermark in the decoded signal to generate a watermarked signal; and

re-encoding the watermarked signal to generate a watermarked encoded signal in response to the encoding assistance data.

23. (Currently Amended) A signal encoding system ~~(100)~~ comprising:

means ~~(101)~~ for receiving a signal;

a pre-encoder ~~(103)~~ for pre-encoding the signal to generate a pre-encoded signal at a first encoding rate, and ~~operable to generate~~ for generating encoding assistance data comprising scale factor offset data indicative of an association between at least one scale factor associated with the first encoding rate and at least one scale factor associated with a second encoding rate different than the first encoding rate; and

a re-encoder ~~(117)~~ ~~operable to re-encode~~ for re-encoding the pre-encoded signal at the second encoding rate in response to the scale factor offset data of the encoding assistance data.

24. (Currently Amended) ~~A~~ The signal encoding system as claimed in claim 23, wherein the pre-encoder ~~(103)~~ ~~is operable to include~~ includes the encoding assistance data in the pre-encoded signal.

25. (Currently Amended) A ~~The~~ signal encoding system as claimed in claim 23, wherein the pre-encoder ~~is operable to replace~~replaces the scale-factors of the pre-encoded signal by a shifted version of the scale-factors of the second encoding rate

26. (Currently Amended) A method of encoding a signal comprising the steps of:

receiving a signal;

pre-encoding the signal to generate a pre-encoded signal at a first encoding rate;

generating encoding assistance data in said pre-encoding step, said encoding assistance data comprising scale factor offset data indicative of an association between at least one scale factor associated with the first encoding rate and at least one scale factor associated with a second encoding rate different than the first encoding rate; and

re-encoding the signal or the pre-encoded signal at the second encoding rate in response to the scale factor offset data of the encoding assistance data.

27. (Currently Amended) A computer-readable medium having recorded thereon a computer program enabling the carrying a processor to carry out of ~~the~~ method ~~according to~~ as claimed in claim 22.

28. (Cancelled).